

The strata of Ilford, although comparatively of a recent date, and the monument of but a small geological period, show that all things were not made in a moment, but were progressive, and associate the inorganic with the organic creation, in the common principle of growth and development, however differently each may be carried out; proving that the Mammoth and the Earth went on increasing gradually—both had an infancy, and both required time for their maturity.

But the operations of the Infinite are based upon benevolence, and seem to have had one great and creative act in view—to which all preceding were to be in some way subservient:—for ages did a large creation enjoy the undisturbed possession of the lands, but at length the Mammoth, Bear and Rhinoceros became extinct, whilst the Stag, Beaver, Sheep and Pig were preserved—valleys and irregularities were filled up and levelled by an accumulation of valuable materials—the action of natural laws was gradually reduced in degree—that at last Man might become the Earth's happy occupant.

4 Bolton Street, Piccadilly, June 1847.

XVIII.—*Additions to the Fauna of Ireland**. By WILLIAM THOMPSON, Esq., Pres. Nat. Hist. and Phil. Society of Belfast.

[Continued from vol. xviii. p. 397.]

BIRDS.

Baillon's Crake, *Crex Bailloni*, Vieill. (sp.).

By letter from Dr. Harvey of Cork, dated January 13, 1847, I was kindly informed that he had at that time in his possession—temporarily—a specimen of this bird, which was taken in a bog at Clay Castle, near Youghal, on October 30, 1845. It was also remarked that the Spotted Crake, *Crex porzana*, was obtained in the same locality in October 1843. Dr. Harvey subsequently, at my request, favoured me with a description of the specimen of *C. Bailloni* as to dimensions and colour. On applying the description to specimens in the British Museum and in Mr. Yarrell's collection, there was a perfect agreement, except in one particular, the white markings being in

* This title is used for brevity. Species are included under it that do not belong to the fauna proper of the country, but in the making out of a general catalogue of the species obtained in Ireland, a separation will be made of the indigenous from the others.

The present communication (excepting the note on *Tadorna rutila*) was read at the Meeting of the British Association for the Advancement of Science at Oxford in June last.

some parts of the plumage of the few specimens examined disposed in the form of streaks, which they were said not to be in any part of the individual obtained in Ireland. The specimen belongs to Mr. Samuel Moss of Youghal.

The *Crex Bailloni* has occurred at various seasons in different parts of England, and is said to breed in some of the northern provinces of France, hence we should expect its occasional appearance in Ireland.

The Whiskered Tern, *Sterna leucopareia*, Natterer; Temm. Manuel, &c. p. 746 (1820).

When in Dublin in the month of March last, I saw in the collection of T. W. Warren, Esq., an adult specimen of this very rare Tern, which was shot in September 1839 "on the river Liffey, between Ringsend and the Pigeon House fort, Dublin bay," by John Hill, Esq. This gentleman, from shooting much at one period in that bay and being much interested in scarce birds, obtained some species of the greatest rarity.

The *S. leucopareia* was discovered by M. Natterer of Vienna in the south of Hungary, and inhabits chiefly the eastern portion of the south of Europe. It has very rarely occurred in the more western countries of the continent. Temminck, when first publishing the species (1820), mentioned that M. de la Motte of Abbeville had on one occasion seen several individuals, and killed three of them in a marsh on the coast of Picardy in France. But one individual—killed at the end of August 1836 at Lyme in Dorsetshire—is noticed in Yarrell's 'British Birds' as having been obtained in England. Specimens of this bird in the British Museum are labelled "*Hydrochelidon* hybrida*, India? Hardwicke bequest," and "Cape Seas, Dr. Andrew Smith's collection." If, as quoted by Schlegel (*Revue Crit. Ois. d'Eur. cxxxi.*), this be *St. hybrida* of Pallas, that name has the advantage of priority.

Sterna velox, Ruppell.

In March last I had the opportunity of examining in Mr. R. Ball's possession in Dublin, a specimen of a Tern, the species of which I did not know. It was left at my friend's house early in the month of January, and evidently had been but recently skinned. Mr. Watters, jun., to whom the specimen now belongs—and who has commenced forming a collection of native birds, which comprises some of the rarest species—assured me, that he saw it in a fresh state, and that it was killed near Sutton—a place on the road between Dublin and Howth—at the end of December 1846: two others of the same species were stated by the shooter to have been in company with it. As the bird was unknown to me, I noted down the following particulars of it, which are here given that others may have an opportunity of forming their judgment upon the species:—

* Boie.

	in.	lin.
Length, total (stuffed), to end of longest tail-feathers	20	3
—— of bill above from forehead to point.....	2	6
—— of bill from rictus to point.....	3	4
—— of wing from carpus	13	9
—— of tarsus about	1	0
—— of middle toe to base of nail	0	11
—— of nail itself measured in a straight line about ...	0	4

Wing and longest tail-feathers about of equal length; outer or longest tail-feathers exceed the middle by three inches. Bill wholly yellowish horn-colour; legs and toes wholly black. Colour of entire plumage the same as that of the common Tern (*S. hirundo*), but the back is rather of a darker shade than that of the latter when adult. The black of the head does not reach within one-third of an inch of the bill; space between the termination of the black plumage and the bill, pure white. The specimen is evidently adult.

On visiting the collection of birds in the British Museum—where the utmost facility for reference and comparison has always been most kindly afforded me by George R. Gray, Esq.—I saw the same Tern labelled "*Sterna velox*, Ruppell, Red Sea." It was from this locality that Ruppell had the species, which is figured in his 'Atlas,' pl. 13 (1826). To Prince Bonaparte it is not known to have occurred farther west in the Mediterranean than Sicily, and so far, only accidentally. The *Sterna cristata* described by Swainson in his 'Birds of Western Africa,' p. 247. pl. 30, agrees in all details with my notes of *S. velox*, except in the colour of the back, which is said to be almost as white as the under parts.

Ruddy Shieldrake, *Tadorna rutila*, Pallas (sp.).

I learn by letter from T. W. Warren, Esq., of Dublin, that he has lately added to his fine collection of rare birds obtained in Ireland, an example of this species. The bird on the second day after being killed was presented to Mr. Glennon, bird-preserved, by Mr. John P. Prendergast, whose letter respecting it was kindly sent for my perusal. It was there stated that the bird was shot on the Murrough of Wicklow* on the 7th July 1847, by Mr. John Moreton of that town. The abode of this species in Europe is in the more southern portion of the eastern countries; the individuals met with in the western parts are considered only accidental visitants: three have been obtained in England.

FISHES.

Argentine.

Scopelus borealis, Nilsson.

Argentina spyraena, Penn.

A specimen of this extremely beautiful little fish was found in a dying state on the beach at Killiney bay, near Dublin, by Professor

* This is an extensive sandy tract bordering the sea near the town of Wicklow; such a locality as is resorted to by the common Shieldrake (*T. vulpanser*) for the purpose of breeding.

Oldham on the 11th of March 1847. It was shown to me on the following morning in Dublin by that gentleman, who subsequently deposited it in the Museum of Trinity College.

This specimen is $2\frac{1}{8}$ inches in total length, and so fully agrees with that described and figured by Dr. W. B. Clarke in the 2nd volume of Charlesworth's 'Magazine of Natural History' (1838) as to render any description unnecessary. It having been dried up before being transferred to spirits, a positive enumeration of the rays in the fins is impracticable, but they are in all the fins about the number given by Dr. Clarke: the anal fin however extends considerably farther along the body (for $4\frac{1}{2}$ lines) than represented in his figure, although it there appears as extending to twice the length that it does in Pennant's fish. It commences in the specimen under examination as Dr. Clarke and Mr. Yarrell (B. F. vol. ii. p. 164, 2nd edit.) figure it, in a line with the last *gutta* of the upper row, but extends as far as the first *gutta* on the ventral line beyond the vacant space. The *guttæ* in all the series are—what I did not anticipate—precisely in number as in Dr. Clarke's specimen, and even where he remarks that one "appears to have been obliterated" in the row of the smallest *guttæ* extending from the commencement of the anal to that of the caudal fin, it is wanting on both sides of the specimen under examination. See Dr. Clarke's paper, p. 23, and Yarrell, p. 164, for a detailed notice of these *guttæ*. Some writers on the Argentine—as Dr. Clarke at p. 23, and Mr. Yarrell at p. 25 of the same volume, in his remarks on that gentleman's communication—seem inclined to believe that among the very few examples of this fish obtained on the British coasts, two species have been taken. The anal fin certainly is very short in Pennant's *figure*, but the author himself is silent respecting the fin and its number of rays, so that we have only the engraving on which to form a judgment. By making fair allowance for the injury that may have occurred to the very delicate and fragile fins of this species, and for a due want of critical accuracy in the draughtsman and engraver, there is not in my opinion sufficient reason for believing that the Argentines hitherto noticed as taken in the British seas were of more than one species, nor, judging from Nilsson's description of the specimen taken on the coast of Norway, do I see reason for considering it as distinct. This author refers Pennant's fish to his *Scopelus borealis*.

NOTES.

Isinglass Sturgeon, *Acipenser huso*, Linn.

A notice of the occurrence of this species on the coast of Cork in July 1845 was communicated to the 'Annals' (vol. xvi. p. 213) by Mr. John Humphreys of the city of that name. This gentleman—as well as Dr. Harvey of Cork, who subsequently examined the specimen—assures me that it was *A. huso* as represented in Shaw's 'Zoology,' vol. v. pl. 159. Mr. Humphreys has informed me of the capture of another specimen which was taken in the second week of April 1847 "at Carrigeen, near Curriglass, on the river Bride, not

far from its junction with the Blackwater. It measured 7 feet 8 inches in length, and weighed nearly 2 cwt."

In a "Note on the Irish species of *Cephaloptera* (*Pterocephala*), by Frederick M'Coy, M.G.S. and N.H.S.D. &c.," published in the 'Annals' for March last (vol. xix. p. 176), the writer seems to consider that it is not the *Ceph. Giorna*, Risso, and recommends that the genus *Pterocephala*, into which it would come, should be adopted. He remarks that:—"On examining this very interesting specimen, I found that although obviously a *Pterocephala*, yet it presented most important differences from the *C. Giorna*, both in outline, proportions, shape of the fins, and form of the wing-like appendages to the head * * * ; [it] seems referable to that described many years ago * * * and figured by Lacepède under the name of *Raja Fabroniana*."

The writer then proceeds to point out in detail the various differences between *Cephaloptera Giorna* and *Raja Fabroniana*.

Before publishing a notice of the Irish *Cephaloptera* in 1835 I referred to the *R. Fabroniana* of Lacepède, and considered the specimen as having about much the same resemblance to it as to the *C. Giorna*, but preferred adopting the latter name. Müller and Henle in their great work on the "Plagiostomen," the highest authority extant on the subject (published in 1841), brought the two names together as representing but one species, and adopted for it Risso's term, *Cephaloptera Giorna*. The Prince Bonaparte has done the same in his 'Catalogo Metodico dei Pesci Europei,' published at Naples in 1846. If therefore I have been the means of the specimen being "erroneously referred to in most works on British Zoology," I err in company with the two best authorities in Europe; and if I be correct, I am indebted to the writer of the "Note, &c." under consideration for providing by his description and figure better means than I had myself done of proving the correctness of my opinion respecting the species in question.

The specimen was so imperfect, and in addition, so distorted by the preserver, that, although in possession of an accurate drawing of it previous to publishing the note in 1835, I was unwilling to have it engraved. The relative dimensions being, for the same reasons, necessarily inaccurate, I abstained also from giving them.

MOLLUSCA.

Lacuna Montacuti, Turt. Zool. Journ. vol. iii. p. 191. *Helix lacuna*, Mont. Test. Brit. p. 428. t. 13. f. 6.

A specimen was obtained near Portaferry, Strangford Lough, in August 1837, by Mr. Hyndman and myself.

Rissoa inconspicua, Alder, Ann. Nat. Hist. vol. xiii.

One specimen found at Portmarnock, 1838, W. T.; one at Buncrana, 1840, Mrs. Hancock.

Rissoa proxima, Alder MSS. (*R. vitrea* of my Report).

Mr. Alder having lately obtained what he considers the true *R. vitrea*, Mont., separates this species from it by the name quoted. I leave to him the description of *R. proxima*. The shell is found at Magilligan (W. T.); Portmarnock (W. T.); Bundoran (Mrs. Hancock); Bantry bay.

Pleurotoma coarctata, Forbes, Ann. Nat. Hist. vol. v. p. 107. pl. 2. f. 15.

Several specimens were dredged on the south-west coast about Bantry bay in 1846 by Mr. M'Andrew.

Nucula decussata, Sowerby.

Specimens of this large but not very distinctly marked *Nucula* from the Dublin coast, have been for some time in my possession, through the kindness of Mr. Warren and Dr. Farren—the latter gentleman noted them as from the deep sea, Howth.

NOTES.

The two following species, though hitherto unnoticed in the Irish Catalogue, are separated from the preceding, which are strictly *indigenous*, in consequence of the one being introduced, and the other perhaps not found living in our seas.

Testacellus Maugei, Ferussac.

Professor Allman informs me that he has found several of this species in a garden at Bandon (co. Cork), and has obtained it in one of the greenhouses at the College Botanic Garden, Dublin:—in the open ground here, it has been met with by Mr. Bain, foreman. It has doubtless been introduced to both localities along with plants.

Teredo malleolus, Turton, Brit. Bival. p. 255. pl. 2. f. 19.

I found numbers of this comparatively small species together with a few of *T. navalis*, Turt., in the timbers of a ship on her return to Belfast from a foreign voyage in 1846. Portions of the timbers were quite honeycombed by *T. malleolus*, so that the vessel had in consequence to undergo great repair. Turton described the species from specimens found in drifted timber at Torbay*.

* He describes the shell as one-fourth of an inch in diameter. My specimens are only one-sixth of an inch, or 2 lines, and the largest borings very little exceed that in diameter. In length, they extend to $2\frac{1}{2}$ inches, and are both straight and diagonal. They generally exhibit only a very thin whitish coating of testaceous matter, but in a few instances this is so thick as to form a tube. The borings are as close together as possible in the piece of plank (black birch?) under examination, which is $2\frac{1}{2}$ inches in thickness. They are formed like those of the *Xylophaga*, against the grain of the wood. The outer perforation is round or roundish, instead of being "rather elongated," as described by Turton.

ANNELIDA.

Tristoma coccineum, Cuv.

Several individuals of this species (as I learn from Mr. John D. Humphreys) were found on a sun-fish, *Orthogoriscus mola*, taken in Cork harbour in Sept. 1846. To Dr. Harvey of Cork, to whom they were given, I am indebted for one of the specimens.

FORAMINIFERA.

Having learned that Mr. Searles V. Wood had been giving some attention to the *Foraminifera* in connexion with his species from the Crag formation, and was desirous of seeing recent forms, I on a late visit to England took for his inspection as many from the Irish coast as could be obtained. That gentleman was much gratified on finding some of these identical in species with those from the Crag. I am indebted to him for naming some of the following which had not been examined by myself: he agreed with me in opinion respecting the species that I had named. As I have not attended much to the synonymy of the species, it is possible that some of the following may have before appeared under other names.

“*Rotalina communis*, D’Orb.

——— *subconica*, Soldani, syn. ?,” Wood.

Bundoran, Mrs. Hancock, 1840; Mr. Warren, 1844.

Rotalia crassula, Mont. (sp.); Brown, *Illust.*

With last, Mrs. H.; Mr. W.

Guttulina communis, D’Orb.*

With last, Mrs. H.; Mr. W.

Quinqueloculina semilunaris, D’Orb.

Bundoran, Mr. W.

“*Quinqueloculina cora*, D’Orb.

——— *semilunaris*, var. ?” †, Wood.

Portmarnock, 1835, W. T.

Triloculina minuta, Brown (sp.)?

Magilligan, 1833, W. T.

Globulina gibba, D’Orb.

Bundoran, Mrs. H.

Spirolina subarcuatula, Mont. (sp.), *Test. Brit.* t. 19. f. 1.

Bundoran, Mr. W.

* *Guttulina Plancii*, D’Orb. (his specimens were from Patagonia). *Re-noidea oblonga*, Brown, *Illust.* pl. 1. f. 16, 17, already recorded by me as Irish (Bundoran, Mrs. H.), apparently identical with *G. Plancii*.

† See D’Orbigny, *Foram. l’Amér. Mérid.* p. 76—his *Q. cora* is a South American form; *Q. semilunaris* is Mediterranean.

Arethusa lactea, Mont. (sp.).

Roundstone, co. Galway, Mr. Barlee, by whom I have been favoured with a specimen thence*.

ECHINODERMATA.

Thyone raphanus, Duben and Koren†.

A specimen was dredged from between fifteen to thirty fathoms about Bantry bay by Mr. McAndrew in 1846.

ZOOPHYTA.

Alecto granulata, Edw.; Johnst. Brit. Zooph. 2nd edit. p. 280. pl. 49. f. 1, 2.

Found attached to stones and shells brought up from deep water in Belfast bay, &c.

[To be continued.]

XIX.—On the Ventriculidæ of the Chalk. By J. TOULMIN SMITH, Esq.

[Continued from p. 97.]

THE structure which has hitherto engaged our attention is, strictly, that of the polypidom only. It remains to seek the natural affinities of the group the polypidom of which is marked by these high characters of structure.

The difficulty of this task will be readily appreciated when it is considered that it involves an inquiry into the nature, in respect to fossil bodies, of the parts most perishable and most difficult of observation even in recent species, and that it becomes necessary first to remove preconceived notions, and afterwards to begin *de novo* to find out the true relations. Further than this, in the structure which I have already described, the combined process

* Mr. Wood, on looking over some species dredged at Lamash (S.W. Scotland) from a depth of about fifteen fathoms (coralline bottom) by the Rev. D. Landsborough and Major Martin, who favoured me with them, named the following:—

Quinqueloculina semilunaris, D'Orb.

Quinqueloculina — ?

Spiroloculina depressa, D'Orb.

Triloculina trigonula, D'Orb.

Biloculina umbonata, Wood MSS. I have English specimens from Mr. Barlee also.

Guttulina communis, D'Orb.

— *Plancii*, D'Orb.

Rotalina beccarii, Mont. (sp.).

† In a memoir entitled "Skandinaviens Echinodermer" (p. 311. t. 11. f. 58, 59), for a copy of which I am indebted to the kindness of Professor Lovén.